THE MINERAL INDUSTRY OF

SINGAPORE

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Singapore is located in the Strait of Malacca in Southeast Asia. The city-state is one of the most important shipping centers in the world. Information technology and skilled manpower were the main drivers of Singapore's competitiveness in the region. In 2001, the deterioration of economic conditions worldwide and a severe downturn in trade performance pushed Singapore's economy into its worst recession since independence in 1965. Singapore has no domestic mineral resource production and imports all the raw materials for its manufacturing economy. The manufacturing sector, which contributed about one-third of the gross domestic product (GDP) and employed about 21% of the total workforce, declined by more than 11%. The contraction was mainly caused by the decline in output of, in order of share of production and market, semiconductors, telecommunication equipment, and computer peripherals. This also affected the supporting production sectors, such as fabricated metals and machinery, as well as other service sectors.

In 2001, total foreign trade was $207.7 billion; this was a decline of 9.4% compared with that of 2000. Electronics exports, which accounted for about 40% of total trade, contracted by 32.9% in 2001; this was in sharp contrast to the double-digit growth in 2000. The Government enacted a series of supplementary budget measures to support the economy and to prevent unemployment. The $1.2 billion stimulus package included the acceleration of expenditures on economic and social infrastructure projects and the reduction of business costs through property tax and rental rebates in July. It was followed in October by a $6.3 billion second stimulus package that included a range of corporate and personal income tax rebates; reduced education, hospital, and utilities costs; provided a guaranteed investment return and a bonus tied to the economy's GDP growth referred to as "New Singapore Shares;" and expanded the social safety net program. These measures helped market demand in the last quarter of 2001, but could not reverse the domestic downturn and its effects for the year. During 2001, the GDP posted a negative growth of 2.0% compared with a growth of 10.3% in 2000. The GDP for 2001 was $85.3 billion (Far Eastern Economic Review, 2001a, b, 2002).

The Singaporean Government continued restructuring and revitalizing its policies to retain its global competitiveness. For many years, foreign and Government-directed investment through state-owned companies provided the basis for the transformation of Singapore into a modern industrial economy. The Government continued its plan to reform domestic banking that began in 1998. Foreign banks were allowed to engage in the retail and wholesale banking markets. Reforms of the regulatory and supervisory policies for insurance companies, licensed securities dealers, and futures brokers that enhance the safety and soundness of the financial system were implemented in 2001. The Government also emphasized assistance to the workforce to upgrade its skill and knowledge base to transform the city-state from a manufacturing to a service economy (Asian Chemical News, 2002).

Owing to the economy downturn, falling demand in the construction sector, and increasing production costs, NatSteel Ltd. decided to reduce output by 35% in 2001. The company had an output capacity of 600,000 metric tons (t) from its 80-t electric arc furnace. In 2001, NatSteel acquired 16.7% share in Lee Metal Group Ltd. The two companies agreed to combine their scrap metal operations into a single entity to improve efficiency and to reduce costs. Facing a difficult time at home, NatSteel turned to overseas markets for future investment and growth. The company intended to take shares in a consolidated construction steel company in Thailand and to acquire a wire producer in China. Also, the company planned to double output capacity at Southern NatSteel (Xiamen) Ltd. in China and to expand the steelmaking capacity at ACo Minas Gerais in Brazil. NatSteel also considered restructuring its operations in Malaysia, the Philippines, and Vietnam (Metal Bulletin, 2001a-c).

In 2001, petrochemical producers in Singapore faced a difficult time because price competition and economic conditions in the region led to smaller export orders. Shell Singapore, which had a total capacity of 59,000 metric tons per day, reduced output at its Bukom refinery by 22%. During the past 2 years, the refinery had operated below its capacity because of overcapacity in the Asian refinery sector. The export of petroleum products declined by 5% in 2001 compared with that of 2000. ExxonMobil Chemical decided to build a $2 billion integrated petrochemical facility on Jurong Island. The 800,000-metric-ton-per-year (t/yr) cracking plant will produce ethylene and propylene, a 480,000-t/yr polyethylene plant, a 315,000-t/yr polypropylene plant, a 150,000-t/yr oxo-alcohol plant, and a 155-megawatt powerplant (Asian Chemical News, 2001a).

Despite market uncertainty, the Singaporean Government pushed ahead with plans to expand the value of the annual chemical industry output to more than $75 billion by 2010. The Jurong Island project would be the cornerstone of this development. Singapore's Economic Development Board (EDB), which oversees this project, is working on the next phase to bring 150 companies with a total investment of $40 billion and 15,000 new jobs to the island by 2010. The EDB attracted investment to provide a vertically integrated structure by making it easy for downstream producers to source their raw materials and for upstream suppliers to find customers. In 2001, more than 60 international companies have invested more than $11.5 billion and employed more than 6,500 workers. The National Science and Technology Board opened the Institute of

Chemical Sciences on Jurong Island. The Institute will train 800 students and provide on-the-job training for 8,000 workers annually. As an additional investment incentive, the Government allows 100% ownership of operations and full repatriation of profits. Many companies were concerned that Singapore was a more expensive location for labor, land, and utilities when compared with other locations in Asia. To solve the utility problem, Singaporean Sembawang Gas Pte (SembGas) signed an agreement with Indonesia's national petroleum company Pertamina to import 9.2 million cubic meters per day of natural gas from the West Natuna Field for 22 years in 1999. In July 2001, natural gas from West Natuna Field was piped to Singapore via the 656-kilometer-long West Natuna Transportation System. SembGas planned to sell natural gas to power generators and petrochemical plants and hoped to increase its gas supply to petrochemical plants from 5% to 30% by 2004. Its sister company SembCorp Utilities and Terminals planned to build a third common utility center on the island which would become operational in 2004 (Asian Chemical News, 2001b).

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